

**Notice of Allowability**

Application No.

09/593,118

Examiner

Akiba K. Robinson-Boyce

Applicant(s)

DREW ET AL.

Art Unit

3628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to COMMUNICATIONS FILED 8/27/07.
2. ☒ The allowed claim(s) is/are 1-13, 15-28, 30-43, 45-58 and 60-71.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 5. <input type="checkbox"/> Notice of Informal Patent Application                     |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|  | 9. <input type="checkbox"/> Other _____   |

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. Claims 1-13, 15-28, 30-43, 45-58 and 60-71 are allowed.
2. Since allowable subject matter has been indicated, applicant is encouraged to submit formal drawings in response to this Office Action. The early submission of formal drawings will permit the Office to review the drawings for acceptability and to resolve any informalities remaining therein before the application is passed to issue. This will avoid possible delays in the issue process.
3. The following is an examiner's statement of reasons for allowance. None of the prior art of record either individually or in combination teach the following:
  - determining a focus for retention-based interactions by clustering the hazard function for a first existing customer and hazard functions for a plurality of other existing customers so that the hazard functions are grouped together according to shape, each group representative of a customer set.

The present invention discloses a method, apparatus, and system for evaluating customer value to guide loyalty and retention programs. The allowable feature of determining a focus for retention-based interactions by clustering the hazard function for a first existing customer and hazard functions for a plurality of other existing customers so that the hazard functions are grouped together according to shape, each group

Art Unit: 3628

representative of a customer set is not disclosed by any prior art reference. The closest prior art, Flockhart et al (US 6,064,731) shows a system where "at risk" customers are determined, and once determined, special treatment is implemented towards these customers, including customer service focus on agent training in an attempt to maintain high standards of service. The next closest prior art, Horowitz et al (US 6,349,290) discloses an automated system and method for presenting both interactive and proactive customized and personalized advice for a customer, where a "life stage" factor is calculated through comparison of the risk level of the advice to the risk tolerances to the previous customers' activity. The next closest prior art, Bank Marketing's "Are Your Customers Profitable" discloses an evaluation of individual customer profitability and customer lifetime value. The next closest prior art, Sanders discloses an enterprise value enhancement system where neural network that includes multiyear feed-forward types for processing. Newly cited art, Wong et al discloses a method and apparatus for customer loyalty and marketing analysis where keeps track of customer frequency award points in order to encourage customers to participate in the system. However, Flockhart et al, Horowitz et al, Bank Marketing, Sanders, and Wong et al all fail to disclose the feature of determining a focus for retention-based interactions by clustering the hazard function for a first existing customer and hazard functions for a plurality of other existing customers so that the hazard functions are grouped together according to shape, each group representative of a customer set. This distinct feature has been added to independent claims 1, 16, 31, 46, 61 and 63, and renders them and all claims that depend from them allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Akiba K Robinson-Boyce whose telephone number is 571-272-6734. The examiner can normally be reached on Monday-Friday 9am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

•Patent Application Information Retrieval (PAIR) system, Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 3628

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

A handwritten signature in black ink, appearing to read 'A. R. B.', with a stylized, cursive flourish extending from the end.

A. R. B.

September 10, 2007